

- **Aerial Surveillance Operations:** High-quality real-time video streaming for operational support, emergency response, and security monitoring
- **Aerial Mapping Operations:** Photogrammetry missions with full GIS analysis including structure counting, post-disaster assessments, fire burn scar measurements, and delivery of outputs in multiple digital and printed formats

Services must be available 24 hours per day, 7 days per week, 365 days per year with defined response times for emergency and non-emergency deployments within the operational area of the City of Cape Town.

5.4.2 Operational Requirements:

This section defines the operational framework and service delivery standards that the Service Provider must meet to deliver effective UAS services for public safety operations.

5.4.3 Core Service Delivery Model

The Service Provider must establish and maintain a comprehensive service delivery capability based on standardized team deployments with defined response times and availability requirements.

Component	Requirement	Specification
Team Composition	2 Remote Pilots	BVLOS endorsed, minimum 2 years public safety experience
	3 UAS Platforms	Primary surveillance (2) + backup/mapping (1) platforms
	1 Operations Vehicle	Mobile command centre, 8-hour continuous operation capability
Response Times	Emergency Operations	Deployment within 30 minutes of acknowledgement of notification
	Urgent Operations	Deployment within 60 minutes of acknowledgement of notification
	Planned Operations	Team deployed at scheduled time
Service Availability	Coverage	24 hours per day/7 days per week/365 days per year emergency response capability
	Deployment Duration	8 hours per team per shift
	Multiple Teams	Capability to deploy simultaneous teams (minimum of 2).

5.4.4 Primary Service Categories

The Service Provider must demonstrate capability to deliver two distinct but complementary service categories, each with specific technical requirements and operational standards.

5.4.4.1 Aerial Surveillance Services

Real-time surveillance operations require high-quality video streaming capabilities with immediate distribution to command centres and field personnel.

Capability	Minimum Specification
Video Streaming	1080p resolution at 30fps, maximum 3-second latency
Distribution	Fixed Command Centres, mobile devices, temporary command posts
Camera Control	Pan, tilt, zoom (minimum 28x), thermal imaging, object tracking
Operations	Thermal and Near infrared / Low light camera sensors, geo-referencing, recording and playback